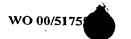
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A method for manufacturing hot rolled steel sheets comprising the steps of:

passing molten steel through a continuous caster having a mold after having been poured into a ladle and a tundish to manufacture a slab;

cutting the slab to predetermined lengths using a cutter to form a plurality of cut slabs:

heating the cut slabs to a predetermined temperature in a first heating furnace:

descaling the cut slabs heated in the first heating furnace;

rolling the slabs in a reduction unit to a predetermined thickness to form a plurality of flat bars;

heating the flat bars to a predetermined temperature in a second heating furnace;

coiling the flat bars by a coiling station while the flat bars are maintained in a heated state:

uncoiling the flat bars by an uncoiler; and rolling the flat bars to a predetekmined thickness in a finishing mill.

- 2. The method of claim 1 wherein the slabs are heated to a temperature 1000°C and above by the first heating furnace.
- 3. The method of claim 2 wherein the slabs are heated to a temperature between 1000 and 1200°C for 5-6 minutes by the first heating furnace.
- hope of claims 1-3 wherein the slabs undergo 4. The method as in jiri width rolling before being descaled and after being heated by the first heating furnace.
- 5. The method as in any one of claims 1-3 wherein the slabs being rolled in the reduction unit are maintained to a temperature between 800 and 1000°C at an output of the reduction unit.
- 6. The method of claim 4 wherein the slabs being rolled in the reduction unit are maintained to a temperature between 800 and 1000°C at an output of the reduction unit.





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- 7. The method as in any one of claims 1-3 wherein the slabs casted in the continuous caster undergo liquid core reduction.
- 8. The method of claim A wherein the slabs casted in the continuous caster undergo liquid core reduction.
- 9. The method of claim 5 wherein the slabs casted in the continuous caster undergo liquid core reduction.
- 10. The method of claim 6 wherein the slabs casted in the continuous caster undergo liquid core reduction.
- 11. The method of claim 7 wherein a thickness of the slabs casted in the continuous caster is 100mm, and the slabs undergo liquid core reduction to a thickness of 80mm.
 - 12. The method as in any one of claims 8-10 wherein a thickness of the slabs casted in the continuous caster is 100mm, and the slabs undergo liquid core reduction to a thickness of 80mm.
 - 13. A method for manufacturing hot rolled steel sheets comprising the steps of:

passing molten steel through a continuous caster having a mold after having been poured into a ladle and a tundish to manufacture a slab;

cutting the slab to predetermined lengths using a first cutter to form a plurality of cut slabs;

heating the cut slabs to a predetermined temperature of a first rolling in a first heating furnace;

descaling the cut slabs heated in the first heating furnace;

rolling the slabs in a reduction unit to a predetermined thickness to form a plurality of flat bars;

heating the flat bars to a predetermined temperature of a second rolling in a second heating furnace;

coiling the flat bars by a coiling station while the flat bars are maintained in a heated state;

uncoiling a plurality of the flat bars by uncoilers;
rolling the flat bars to a predetermined thickness in a finishing mill while

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a rear end of a bar steel undergoing rolling is joined to a front end of another bar steel waiting to be rolled such that the bar steels can be continuously rolled; and cutting the flat bars to a predetermined length by a third cutter.

- 14. The method of claim 13 wherein the slabs are heated to a temperature 1000°C and above by the first heating furnace.
 - 15. The method of claim 14 wherein the slabs are heated to a temperature between 1000 and 1200° C for 5-6 minutes by the first heating furnace.
 - 16. The method as in any one of claims 13-15 wherein the slabs undergo width rolling before being descaled and after being heated by the first heating furnace.
 - 17. The method as in any one of claims 13-15 wherein the slabs being rolled in the reduction unit are maintained to a temperature between 800 and 1000°C at an output of the reduction unit.
 - 18. The method of claim 16 wherein the slabs being rolled in the reduction unit are maintained to a temperature between 800 and 1000°C at an output of the reduction unit.
 - 19. The method as in any one of claims 13-15 wherein the slabs casted in the continuous caster undergo liquid core reduction.
- 20. The method of claim 16 wherein the slabs casted in the continuous caster undergo liquid core reduction.
- 21. The method of claim 17 wherein the slabs casted in the continuous caster undergo liquid core reduction.
- 22. The method of claim 18 wherein the slabs casted in the continuous caster undergo liquid core reduction.
- 23. The method of claim 19 wherein a thickness of the slabs casted in the continuous caster is 100mm, and the slabs undergo liquid core reduction to a thickness of 80mm.
- 24. The method as in any one of claims 20-22 wherein a thickness of the slabs casted in the continuous caster is 100mm, and the slabs undergo liquid core reduction to a thickness of 80mm.







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